

WE CLAIM:

1. A flexible, solid fire sealing composition comprising:
 - (a) water-insoluble intumescent mineral granules;
 - (b) a thermoplastic or thermosetting, halogen-free binder; and
 - (c) a phosphorus containing flame retardant,
- 5 wherein said composition has a softness value from about 0.01 to about 3.75 mm.
2. The composition of claim 1, wherein the intumescent mineral granules comprise a mixture of hydrated alkali metal silicate and at least one oxyboron compound, expandable graphite, or a mixture thereof.
- 10 3. The composition of claim 1, wherein the intumescent mineral granules comprise a mixture of hydrated alkali metal silicate and at least one oxyboron compound.
4. The composition of claim 1, wherein the intumescent mineral granules comprise expandable graphite.
- 15 5. The composition of claim 1, wherein the halogen-free binder comprises an ethylene vinyl acetate copolymer, a synthetic or natural rubber, or a blend thereof.
6. The composition of claim 1, wherein the flame retardant comprises ammonium polyphosphate.
- 20 7. The composition according to claim 1 comprising:
 - (a) about 25 to about 60 wt-% of water-insoluble intumescent granules;
 - (b) about 12 to about 40 wt-% of a thermoplastic or thermosetting, halogen-free binder; and
 - (c) about 15 to about 40 wt-% of a phosphorus containing flame retardant.
- 25 8. The composition of claim 7, wherein the binder is an ethylene vinyl acetate copolymer.
9. The composition of claim 7, wherein the binder is a blend of an ethylene vinyl acetate copolymer and a natural or synthetic rubber.
- 30 10. The composition of claim 9, wherein the binder is a blend of ethylene vinyl acetate and synthetic isoprene.
11. A method of fire stopping a through-penetration comprising applying a flexible, solid fire sealing composition according to claim 1 to said 35 through-penetration and allowing the composition to expand and char upon application of heat.

12. A method of fire stopping doors and windows comprising applying a flexible, solid fire sealing composition according to claim 1 to said doors and windows and allowing the composition to expand and char upon application of heat.

5 13. A process for preparing a flexible, solid fire sealing composition comprising high shear mixing in a substantially volatile-free state:

- (a) water-insoluble intumescent mineral granules;
- (b) a thermoplastic or thermosetting, halogen-free binder; and
- (c) a phosphorus containing flame retardant;

10 wherein the resulting composition has a softness value from about 0.01 to about 3.75 mm.

14. The process of claim 13, wherein a twin-screw extruder is used for high shear mixing.

15. The process of claim 14, wherein components (a), (b) and (c) are added to a heated zone of the twin-screw extruder where volatiles, if present, are removed prior to entering a mixing zone of said extruder.

Add A' *add B'*